

Remarks

The §102(e) Rejections of Claims 1, 2, 4, 5 and 8-13

The Examiner rejected Claims 1, 2, 4-6 and 8-13 under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2004/0035275 (Lihl et al. or 2004/0035275). Applicants respectfully traverse the rejection.

Claims 1, 2 and 4-6

Independent Claim 1 recites in pertinent part “A cooling chamber comprising: an illumination system that emits light, a knife surrounded by the cooling chamber . . .” (emphasis added).

The Examiner asserts that Lihl et al. disclose a common cooling chamber comprising an illumination system that emits light, as well as a knife surrounded by the cooling chamber, wherein the knife defines a surface, and a stereomicroscope is provided outside the cooling chamber for the observation of the surface of the knife, whereby the illumination system is arranged such that the emitted light is directed onto the surface of the knife in such a way that the light reflects from the surface toward the stereomicroscope.

Although the Examiner asserts that Lihl et al. disclose a common cooling chamber comprising an illumination system that emits light, Applicants contend that 2004/0035275 does not disclose a cooling chamber in the written description or the drawings. Lihl et al. also fail to teach or suggest a cooling chamber with an illumination system that emits light. Neither is there any teaching or suggestion from Lihl et al. of a knife surrounded by a cooling chamber.

The Examiner indicates that Fig. 3, Reference No. 30 of Lihl et al. shows a cooling chamber comprising an illumination system that emits light. However, Fig. 3 and all other drawings are clearly missing any structure that could be interpreted to be a cooling chamber or its equivalent. Fig. 3 shows base illumination system 30 and knife 7, but there is nothing remotely related to a cooling chamber disclosed by Lihl et al. The Lihl et al. application specifically states in paragraph [0025] that “base-mounted illumination system 30 is provided.” Nothing more is said in the written description, or is shown in the drawings of Lihl et al. that teaches or suggests that 30 or any other element is a cooling chamber. More particularly, the

microtome disclosed by Lihl et al. fails to teach or suggest a cooling chamber with an illumination system, or a cooling chamber that emits light.

Moreover, the assertion by the Examiner that Lihl et al. disclose a knife surrounded by a cooling chamber is incorrect. The knife disclosed by Lihl et al. is clearly not contained within a cooling chamber, but is an apparatus that is not surrounded by any structure at all, let alone a cooling chamber.

Hence, Lihl et al. do not disclose all the elements of Claim 1. Therefore, Claim 1 has not been anticipated by Lihl et al. and Claim 1 is novel with respect to Lihl et al. Claims 2 and 4-6, which depend from Claim 1, are consequently also novel with respect to Lihl et al.

Claims 8-14

Independent Claim 8 recites in pertinent part “a system of a cooling chamber with a microtome . . . wherein the knife and the sample holder are arranged in the cooling chamber . . . and an illumination system mounted in the cooling chamber emits light . . .” (emphasis added).

The Examiner asserts that Lihl et al. teaches a system with a cooling chamber and a microtome, where the microtome comprises a knife and a sample holder arranged in the cooling chamber and opposite each other. Also, the Examiner asserts that a stereomicroscope position on the microtome wherein the stereomicroscope defines an optical axis, and the region of the cutting edge of the knife being observable with the stereomicroscope, and an illumination system mounted in the cooling chamber emits light which is directed onto a surface of the knife in such a way that the light reflects from the surface toward the stereomicroscope. The Examiner identifies Fig. 1, Reference No. 1 as evidence of a cooling chamber with a microtome, where knife 7 and sample holder 3 are shown in Figure 1 arranged in the cooling chamber and opposite to each other.

Conversely, Applicants contend that Figure 1 shows microtome 1 with specimen arm 3 and knife 7, but there is no explicit or inherent disclosure in the cited reference of a cooling chamber, let alone a cooling chamber that houses knife 7 and specimen arm 3.

The Examiner points to paragraph [0025], Lines 2-12, as support in Lihl et al. for the proposition that Lihl et al. teach a illumination system mounted in a cooling chamber, where the

light emitted is directed onto the surface of the knife in such a way that the light reflects toward the stereomicroscope. That assertion is not supported by the disclosure of Lihl et al. The Lihl et al. disclosure in general, and specifically Paragraph [0025], has no disclosure whatsoever that identifies a cooling chamber as an element of the disclosure of Lihl et al., nor is there any teaching or suggestion of an illumination system mounted in a cooling chamber.

Hence, Lihl et al. do not disclose all the elements of Claim 8. Therefore, Claim 8 has not been anticipated by Lihl et al. and Claim 8 is novel with respect to Lihl et al. Claims 9-14, which depend from Claim 8, are consequently also novel with respect to Lihl et al.

Statement of Common Ownership

The undersigned attorney hereby states:

U.S. Patent Application No. 10/711,406 (the instant application) and U.S. Patent Application No. 10/604,135 were, at the time the invention of U.S. Patent Application No. 10/711,406 was made, commonly owned by Leica Mikrosysteme Gmbh ("Leica").

The Rejection of Claim 3 under 35 USC §103(a)

Claim 3 was rejected under 35 USC §103(a) as unpatentable over U.S. Publication No. 2004/0035275 (Lihl et al. or 2004/0035275) in view of U.S. Patent No. 5,871,271 (Chien et al.). Applicants respectfully traverse the rejection.

Both Lihl et al. and the present application were commonly owned by Leica at the time the invention of the present application was made. Under 35 U.S.C. § 103(c), subject matter developed by another person or entity, which qualifies as prior art only under §102(e) does not preclude patentability if that subject matter was owned by the same person at the time the invention was made.

As stated in the Statement of Common Ownership above, Lihl et al. and the invention of the present application were commonly owned by Leica at the time the invention in Claim 3 of the present application was made. Under § 103(c), Lihl et al. cannot be cited as disqualifying

prior art against Claim 3 due to this common ownership. Because Lihl et al. cannot be cited as prior art against Claim 3, the current rejection of Claim 3 under § 103 (a) should be withdrawn and that claim passed to allowance. Applicants respectfully request withdrawal of the rejection of Claim 3 and passage to allowance of that claim.

However, assuming *arguendo* that the instant application and Lihl et al. were not commonly owned, the rejection under 35 USC §103(a) would not stand because the combination of Lihl et al. and Chien et al. does not teach all the elements of Claim 3. Although the Examiner asserts that Lihl et al. disclose a common cooling chamber comprising an illumination system, Applicants contend that both Lihl et al. and Chien et al. fail to disclose a cooling chamber in their written descriptions or drawings. Neither is there any mention in both references of a knife surrounded by a cooling chamber. The Examiner indicates that Fig. 3, Reference No. 30 of Lihl et al. shows a cooling chamber comprising an illumination system that emits light. However, Fig. 3 and all other drawings are clearly missing any structure that could be interpreted to be a cooling chamber. Fig. 3 shows a base illumination system 30 and a knife 7, but there is nothing remotely related to a cooling chamber that is disclosed by Lihl et al. or Chien et al.

Furthermore, there is no credible motivation or suggestion to combine Lihl et al. and Chien et al. Chien et al. is cited by the Examiner to teach that the LEDs are switched on and off individually. The Examiner states that it would have been obvious to one of ordinary skill at the time of the invention to have the LEDs switch on and off individually on the device of Lihl et al. for the benefit of creating various lighting effects, as taught by Chien et al. The Examiner indicates that the desire to provide various lighting effects is the motivation or suggestion to combine Chien et al. and Lihl et al. However, this motivation is not credible given that the instant application is not interested in providing various lighting effects, but the capability of switching the several LEDs on and off provides oblique illumination of the surface of the knife which enables the specimen that is being cut to be illuminated for sight through a stereomicroscope. The general objective of providing the benefit of “various lighting effects” is not the same as providing an oblique illumination of the surface of the knife in the microtome of the instant application. Switching the LEDs of the instant application on and off individually

provides the user of the microtome the capability of having LEDs that are arranged at different angles to enable a user to select suitable illumination to see the knife and specimen of the microtome. Chien et al. uses an integrated circuit controller to switch the LEDs on and off to provide special effects on a protective helmet. Nothing in that reference is related to subtle control of LEDs to achieve the ideal illumination needed to cut microscopic samples in a microtome. The individual control of the LEDs, such that each LED in the instant application can be turned on and off individually is not related to the integrated circuit system used by Chien et al. Consequently, one of ordinary skill in the art would not be motivated to combine the teachings of Chien et al. and Lihl et al.

Additionally, Chien et al. is from a field that is non-analogous to the instant application and unrelated to the endeavor of the Applicants. Therefore, the use of the Chien et al. reference is inappropriate and the rejection is not valid. Chien et al. disclose a protective helmet decorated with LEDs. The LEDs are disposed on the protective helmet at various locations to increase the visibility of the wearer of the helmet. The LED arrangement on the helmet is also intended to provide a means to display messages, designs and special effects with low power consumption. The instant application is completely unrelated to the invention disclosed by Chien et al., which is a microtome designed to prepare thin slices of biological samples. Chien et al. and the instant application are from non-analogous arts and cannot be relied on by the Examiner in this rejection. Chien et al. is completely unrelated to Applicants' field of endeavor and is not related to the particular problem with which Applicants were concerned, i.e., providing a light source that would prevent ice crystal formation on the knife inside a cooling chamber and still provide an illumination system that can provide lighting from multiple angles. Therefore, because Chien et al. is non-analogous prior art, the use of this reference was not appropriate and the rejection of Claim 3 was improper.

For all the reasons above, Applicants respectfully request withdrawal of the rejection of Claim 3 and passage to allowance of that claim.

The Rejection of Claims 7, 15 and 16 under 35 USC §103(a)

Claims 7, 15 and 16 were rejected under 35 USC §103(a) as unpatentable over U.S. Publication No. 2004/0035275 (Lihl et al.) in view of U.S. Patent No. 4,284,894 (Sitte et al.). Applicants respectfully traverse the rejection.

Both Lihl et al. and the present application were commonly owned by Leica at the time the invention of the present application was made. Under 35 U.S.C. §103(c), subject matter developed by another person or entity, which qualifies as prior art only under §102(e) does not preclude patentability if that subject matter was owned by the same person at the time the invention was made.

As stated in the Statement of Common Ownership above, Lihl et al. and the invention of the present application were commonly owned by Leica at the time the invention in Claims 7, 15 and 16 of the present application was made. Under §103(c), Lihl et al. cannot be cited as disqualifying prior art against Claims 7, 15 and 16 due to this common ownership. Because Lihl et al. cannot be cited as prior art against Claims 7, 15 and 16, the current rejection of Claims 7, 15 and 16 under §103(a) should be withdrawn.

However, assuming *arguendo* that the instant application and Lihl et al. were not commonly owned, the rejection under 35 USC §103(a) would not stand because the combination of Lihl et al. and Sitte et al. do not teach all the elements of Claims 7, 15 and 16. Although the Examiner asserts that Lihl et al. disclose a common cooling chamber comprising an illumination system, Applicants contend that Lihl et al. fails to teach or disclose a cooling chamber in their written description or the drawings. Neither is there any mention in the written description or drawings of both Lihl et al. of a knife surrounded by a cooling chamber. The Examiner indicates that Fig. 3, Reference No. 30 of Lihl et al. shows a cooling chamber comprising an illumination system that emits light. However, Fig. 3 and all other drawings are clearly missing any structure that could be interpreted to be a cooling chamber. Fig. 3 shows a base illumination system 30 and a knife 7, but there is nothing remotely related to a cooling chamber disclosed by Lihl et al. For support for Applicants' assertion one need look no further then paragraph [0025] of the Lihl et al. reference where 30 is explicitly described as a "base-mounted illumination system."

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For all the reasons above, Applicants respectfully request withdrawal of the rejection of Claims 7, 15 and 16 and passage to allowance of those claims.

110

Conclusion

Applicants respectfully submit that the present application is now in condition for allowance, which action is courteously requested. The Examiner is invited and encouraged to contact the undersigned attorney of record if such contact will facilitate an efficient examination and allowance of the application.

Respectfully yours,



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